## ABSTRACT OF THE DISCLOSURE

Heretofore, if the recording mark arranging method in a track is changed, the physical format on the disk is also changed, as in DVD-Rs and DVD-RAMs. This makes it difficult to attain interchangeability between data recorded in a plurality of different recording mark arranging methods. There is provided a method which makes it possible to arbitrarily set a frequency conversion multiplying factor to be used when generating a write clock from a signal obtained by detecting track deformation periodically provided on a recording track, which makes it possible to arbitrarily set a total number of channel bits in a single track, and which thereby implements a plurality of different recording mark arranging methods on disks having the same physical format.

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